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FY 73 to Congress

SMITHSONIAN INSTITUTION

MAJOR EXHIBITIONS PROGRAM, FY 1973

NATIONAL MUSEUM OF NATURAL HISTORY

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

NATIONAL AIR AND SPACE MUSEUM

MAJOR PERMANENT EXHIBITIONS OF SMITHSONIAN MUSEUMS IN FY 1973

The Smithsonian Office of Exhibits Programs designs, produces, installs, maintains and updates exhibits in the approximately 15 acres of public space in the National Museum of Natural History, the National Museum of History and Technology, and the National Air and Space Museum. In FY 1971, 12,735,060 visitors were counted visiting the buildings of these museums.

For over three years prior to FY 1972, no new major permanent exhibitions were in the production phase for any one of these important museums. An allocation of \$525,000 in FY 1972 has made possible the first phases of work on the "World of Living Things" in the National Museum of Natural History. As noted in the FY 1972 request, \$250,000 will be required in FY 1973 to complete the installation of this exhibition which will open to the public in the spring of 1973. To revitalize the other two major museums and to assure the museum visitor the best of communication techniques and educational experiences, it is proposed that a new, substantial permanent exhibition be produced in each. These will be "Of the People, By the People, For the People" in the National Museum of History and Technology, requiring \$500,000 (of which \$275,000 will be available in the base), and "Earthbound Benefits from Flight" in the National Air and Space Museum, requiring \$423,000 (of which \$25,000 is being requested in FY 1973). A total of \$775,000 is requested in FY 1973 to be spent largely for contractual services, supplies and equipment for these specific exhibits.

The purpose of museums is to educate as well as to entertain. In order to function effectively in both capacities, it is necessary to widen the scope of the visitor's participation in the museum experience. If the educational aspects of the museum are to have a lasting impact on the museum-goer this is especially important. The presentation of new exhibitions on topics that are meaningful to the visitor and relate to his place in history, as well as his day to day existence, are essential to the museum function. Further, the museum must broaden the participation of the visitor by: properly orienting him, as he arrives, to the exhibits available; adequately explaining individual objects in the context of the particular exhibition; and providing educational materials that can be taken home to be read and studied.

With relation to its collections and exhibits the Smithsonian has been strongly urged to strengthen its popular publications program. The funds requested for the exhibits will provide for excellent educational presentations for the visitor at the exhibit and for related orientation and educational materials--films, film strips, printed catalogs, pamphlets, and related educational materials.

"THE WORLD OF LIVING THINGS": THE NATIONAL MUSEUM OF NATURAL HISTORY

This major exhibition on the interrelated laws of nature is being designed, and basic components are being fabricated, with funds appropriated in response to the FY-72 "Major Exhibition Program" request by the Office of Exhibits Programs. Based on three years of prior development and planning, designers, scientists, and technicians are now finalizing detailed specifications for all exhibits. Fixtures and devices are being produced both on contract and in the exhibit laboratories of the Smithsonian Institution.

The original request specified the need for \$500,000 in FY 72 and \$250,000 in FY 73. The activities outlined above are being supported by FY-72 funds. As originally estimated and requested, completion of the exhibit for opening in early spring 1973 will require \$250,000 in FY 73. This fund will be used as follows: (21) Travel--\$2,000, (24) Printing and reproduction--\$10,000, (25) Other services--\$100,000, (26) Supplies--\$50,000, and (31) Equipment--\$88,000.

"OF THE PEOPLE, BY THE PEOPLE, FOR THE PEOPLE": THE NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

"Of the People, By the People, For the People" is to be a major semipermanent exhibition in The National Museum of History and Technology. It is designed to explain and interpret the changing shape and character of our Federal Republic and to explain how American government has been shaped by circumstances, institutions, and hopes that are peculiarly American. The exhibit will emphasize the importance of technology (including transportation, communication, industry, and computerization) in shaping the character, purpose, and responsiveness of American political institutions.

For the most part, exhibits on political history in this Museum and elsewhere have been concerned with memorabilia of Presidents and other major government officials and the apparatus of political campaigning. The traditional approach has been generally a text-book type of presentation of the government in its most rigid form--with its three branches, the executive, legislative and judiciary. The exhibition outlined here is designed to bring a more adequate understanding of the museum visitor's personal relationship to the government.

The exhibition will consist of two major sections demonstrating (1) how the government touches the people and (2) how the people shape their government.

Approximately 6,000 square feet of exhibition space will be required for each of the two sections. The cost of production is estimated to be \$500,000.

I. "Of the People" -- How Americans Shape Their Government

The first segment is concerned with the many ways in which Americans shape and affect their government, including:

- a) How candidates for political office have appealed to the voter -- and the effects of transportation, mass communications, and opinion polls.
- b) The ballot. The changing form of the institution of voting will be emphasized, illustrated by historical artifacts and modern devices -- ranging from the colonial public ballot to the computerized voting machine.
- c) The expansion of suffrage (to women, the Negro, 18-year olds); abolition of the poll tax.
- d) The importance of transportation and communication technology in conveying the people's needs and wants to and through their representatives.
- e) The right of petition -- its changing styles and uses; early-19th-century antislavery petitions, Coxey's Army, the Bonus Marchers, the Poor People's Campaign, antiwar demonstrations, etc.

II. "By the People, For the People" -- How Government Touches Americans

At least seven significant themes will be featured in this segment of the exhibit. They are:

a) Who are the people: the changing profile of the average American from colonial times to the present. Visitor response units will encourage the visitor to program certain vital statistics about himself (age, sex, regional origin, employment, etc.); the response will indicate the position of his counterpart within American society at a number of points along the time span of American history. The growth of the importance of vital statistics, with focus on the United States Census and its evolution, will also be featured.

b) The different levels of government -- federal, state, county, municipal -- and the forms they take in our national history will be explained. The quantitative growth of government will also be illustrated: for example, by the number of employees in various government agencies.

c) Means by which government is supported: the history of taxation and its various forms throughout American history -- the mechanism for taxation (local taxing authorities, the Internal Revenue Service, etc.) and the manner of expenditure of tax dollars.

d) Interstate commerce, and the government's role in the encouragement, financing, and regulation of transportation and communications.

e) Education and the government. Three aspects to be featured are:

(1) The growth of public schools, state universities, land-grant colleges, the G.I. Bill, programs for the minorities and the handicapped.

(2) Government's role in the encouragement and support of research: the Bureau of Standards and its regulation of materials for food and shelter; the Atomic Energy Commission's role in developing atomic research for useful purposes; the exploration of space by NASA, among others.

(3) Governmental information services that are provided to the people, such as the Congressional Record, Presidential news conferences, publications of the Government Printing Office.

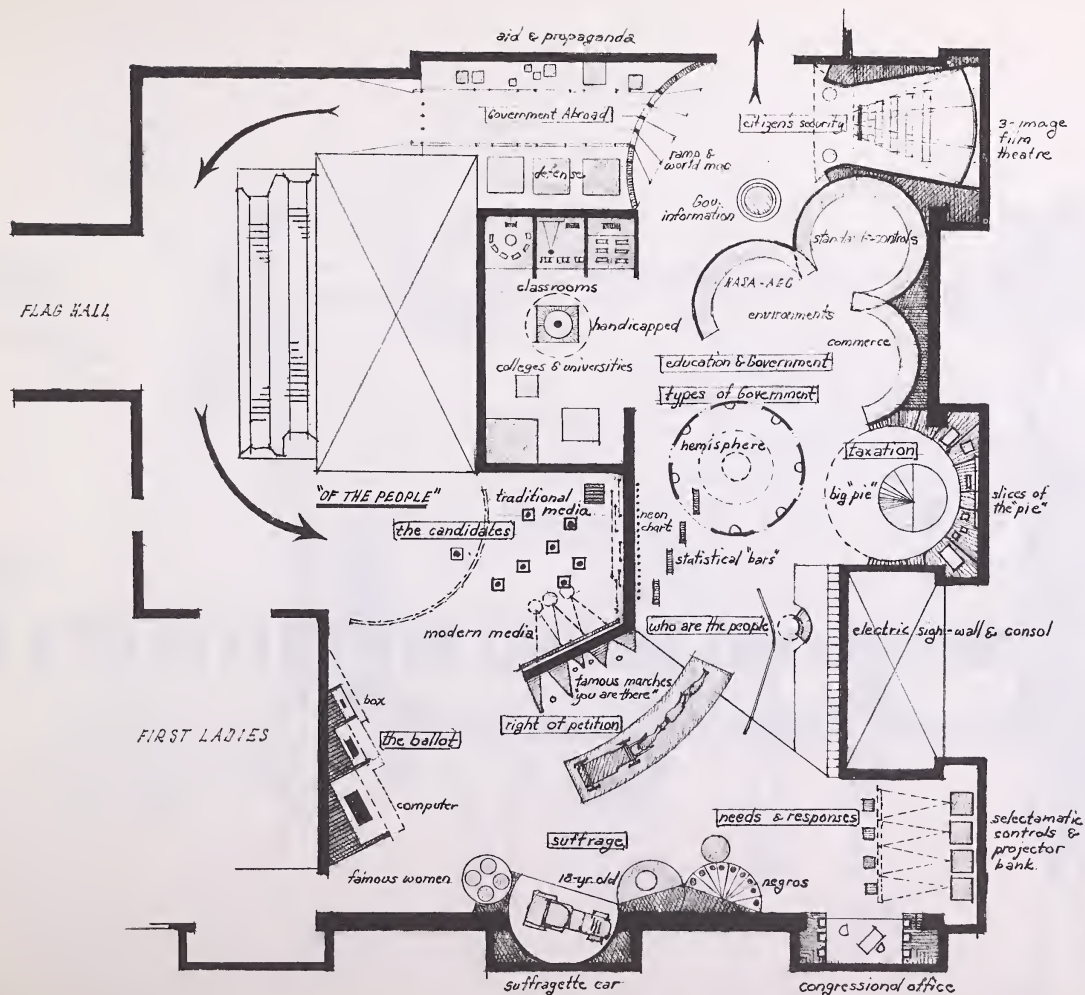
f) The manner in which the basic personal security of the American people -- such as employment, income, health -- is protected by the government: the Social Security Administration, the National Institutes of Health, etc.

g) How the government abroad affects Americans at home in peace and war: the Armed Services, the Foreign Service, the Peace Corps, the Fulbright-Hays Program, Agency for International Development, and similar government programs having a global impact.

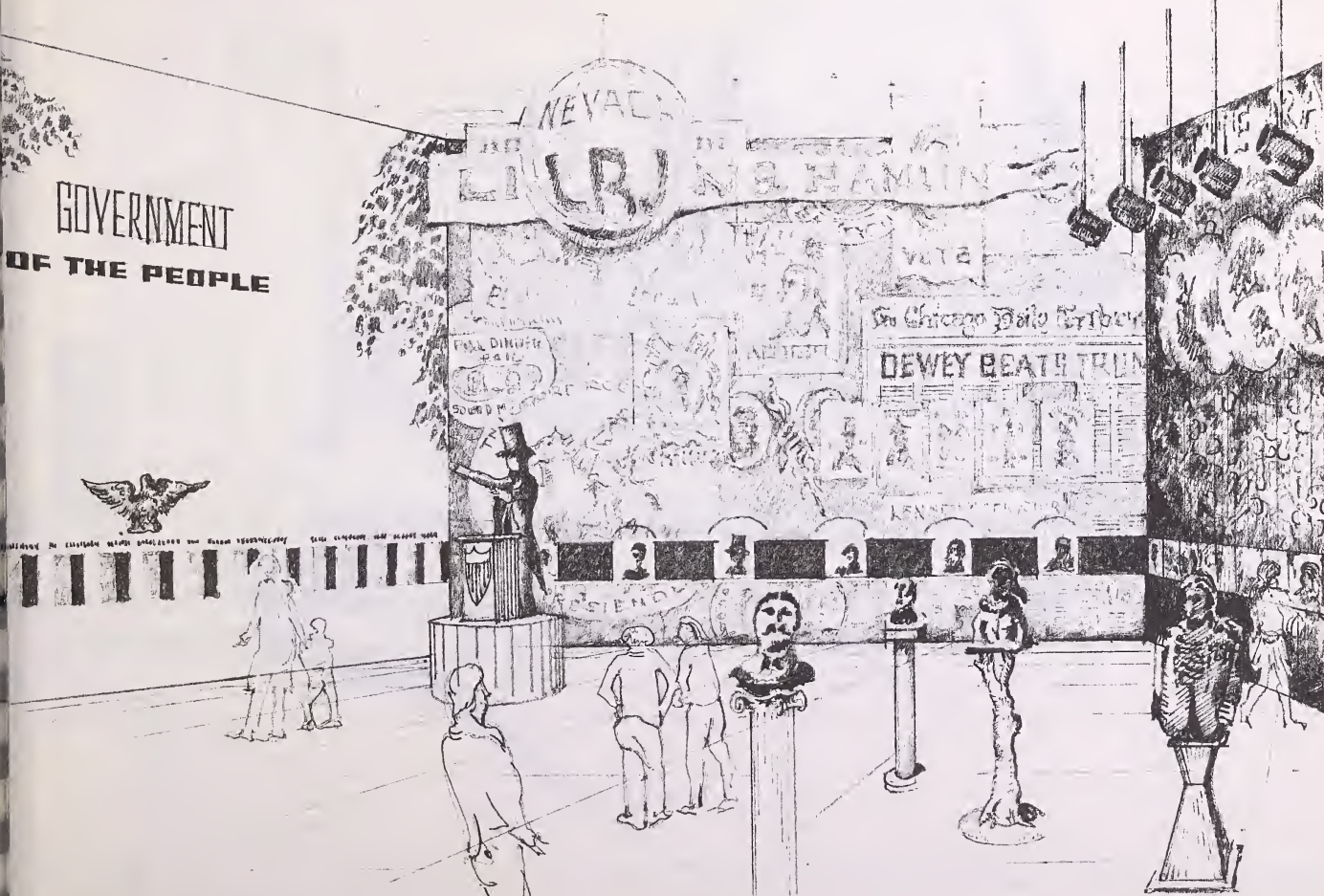
Such an experiment in the telling of history is feasible in The National Museum of History and Technology because it is the only Museum that can readily provide the necessary materials and resources. In the preparation of the exhibit, the Museum's staff of scholars will be supplemented by consultants -- acknowledged authorities in the history of various aspects of American Government. The national collections of original artifacts, which will be utilized for the exhibit, will be augmented by new audiovisual techniques and other devices permitting the maximum in audience participation.

Tentative Estimate of Cost:

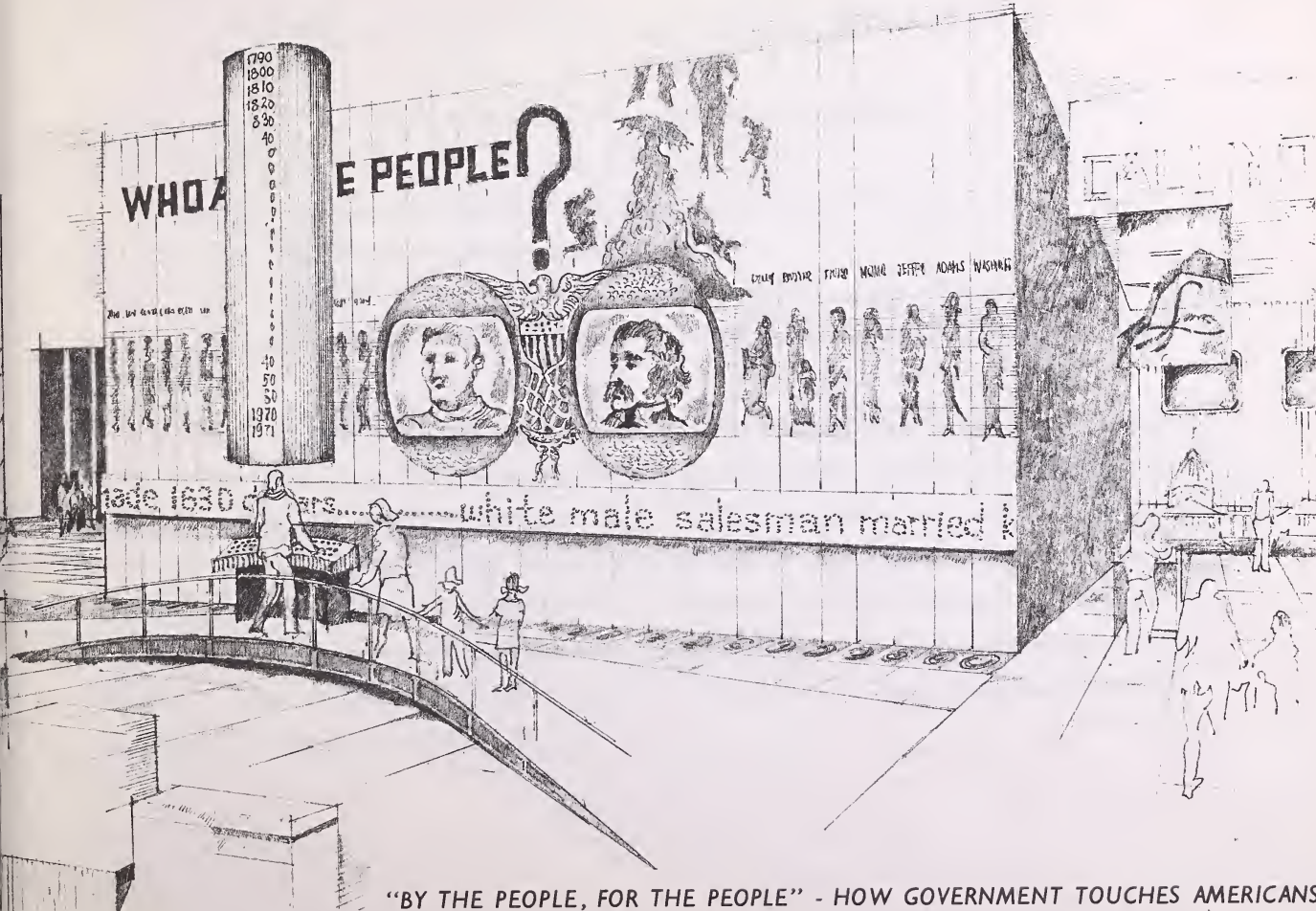
Architectural Design and Preparation of Exhibit Space	\$100,000
Purchase and Programming of Visitor Response Units	100,000
Preparation and Installation of Exhibits	75,000
Acquisition of Specimens for Exhibit	110,000
Audio-Visual Equipment and Programs (Films, special radio and T.V. tapes, etc.)	90,000
Illustrated Catalog of Exhibit	<u>25,000</u>
Total	<u><u>\$500,000</u></u>



"OF THE PEOPLE; BY THE PEOPLE, FOR THE PEOPLE"



HALL INTRODUCTION



"EARTHBOUND BENEFITS FROM FLIGHT": THE NATIONAL AIR AND SPACE MUSEUM

The National Air and Space Museum proposes a unique major exhibition directed to two important goals:

1. Exemplifying the many applications on earth of the extensive knowledge generated in the course of developing air and space flight.
2. Communicating to the visiting public the myriad specific possibilities for further applications, thereby--for the first time--using the museum as a catalyst in the transfer process.

Man lives and works on the surface of the earth. During recent times he has projected himself out from this surface into a new dimension by devising various modes of air and space flight. His progress has been spectacular, resulting not only in diverse vehicles and systems, but in many novel materials, computation systems, manufacturing processes, power sources, electronic principles, and control methods, together with their devices. All of this, however, has been very expensive and man has wondered increasingly how much these developments have been applied elsewhere for his benefit. Of equal or greater importance: how much more can his well-being be increased by future air-and-space-engendered contributions?

Worthwhile goals! but goals seriously obstructed by a major communication problem. The people in air and space who have devised the new ways and the new devices have been unable to communicate well with the public--with those in less esoteric fields who could profitably apply the techniques. The fields of potentially profitable application encompass health care, housing, education, clothing, mass transportation, law enforcement, waste management, machinery, recreation.

The museum, hitherto unused for this purpose, can serve as a novel, exciting, and productive channel for much of this necessary communication. At the same time the museum can present to the public a new dimension of exhibit-based education. We propose to use modern museology to build a bridge between those with the know-how and those with the need.

About four million visitors a year can participate in this living process. Many are leaders in medicine, commerce, manufacturing, education, etc.--the very people who must be shown and whose imagination must be excited to bring about the beneficial transfer of more air-and-space-related knowledge. We will commemorate past achievements; exemplify current successes; demonstrate potentially usable materials, processes, and devices; and suggest possibilities. Hopefully, the public will be informed and potential users will be stimulated.

The process is begun with exhibitions of a range of successful transfers and potentially productive possibilities. Just which applications will be exhibited will, of course, be determined

by substantial preliminary research and, appropriately, the initial phase, proposed for FY 1973, is a phase of research. Some accomplishments which might be shown are listed below to enable better visualization of the subject matter; these are but a small part of a wide range:

1. The application of aerospace beryllium metallurgy to the better understanding of human-bone fracture, which, in turn, led to the design of superior automotive crash-protection systems.
2. The use of operations-research techniques, developed for air-traffic management and helicopter troop deployment, to design superior ambulance systems for emergency medical care.
3. The use of satellite systems in communication and as navigation aids.
4. Identification and description of new diseases by specific electronmicroscopy techniques originally developed to study high-strength aerospace metals. (These same techniques now show potential for trace-material identification in law enforcement.)
5. The development of both a mechanical heart and controls for a watchband-assembly machine, using fluidic devices originally designed for flight control and armament-fusing systems.
6. Meteorological monitoring and pollution surveillance from flying aircraft and satellites.
7. Invention and development of an implantable body-fluid-powered heart pacemaker by application of satellite fuel-cell and energy-conversion technology.
8. Development of automated inspection systems, for housing and other industries, from nondestructive aerospace testing techniques.

Each of these already successful applications (and scores more like them) can be vividly shown in both the original air-and-space version and in its transferred-for-public-good version. The opportunities for dynamic, participative, exhibits employing multisensory presentation are boundless.

In each example, the air-and-space innovation can be portrayed and demonstrated, depicting its principles and familiarizing the visitor with its operation. Educational and entertaining exhibits will involve and engage all classes of museum visitors. Parallel exhibits will present non-air-and-space applications. Again, involving--and frequently participative--exhibits will be used. In all cases, further levels of transfer and new fields of application will be suggested and exemplified.

In addition to exhibiting and demonstrating possible future applications for the benefit of man, we further plan to "close-the-loop" for specifically interested visitors. An information and inquiry center will be maintained. Inquiries stimulated by the impact of the exhibits will be directed in an impartial way to persons with the appropriate know-how (we will develop and maintain a registry of experts in the various fields). This service could yield constructive opportunities for technology transfer to today's hard-pressed air-and space complex.

A special full-time staff is expected to develop and keep the exhibition up to date, and meet the public's requests to find skilled practitioners for possible new applications. We anticipate

that as the exhibition takes form and the operation matures, the staff will become skilled catalysts and leaders in the knowledge-dissemination and "people-oriented" technology-transfer process.

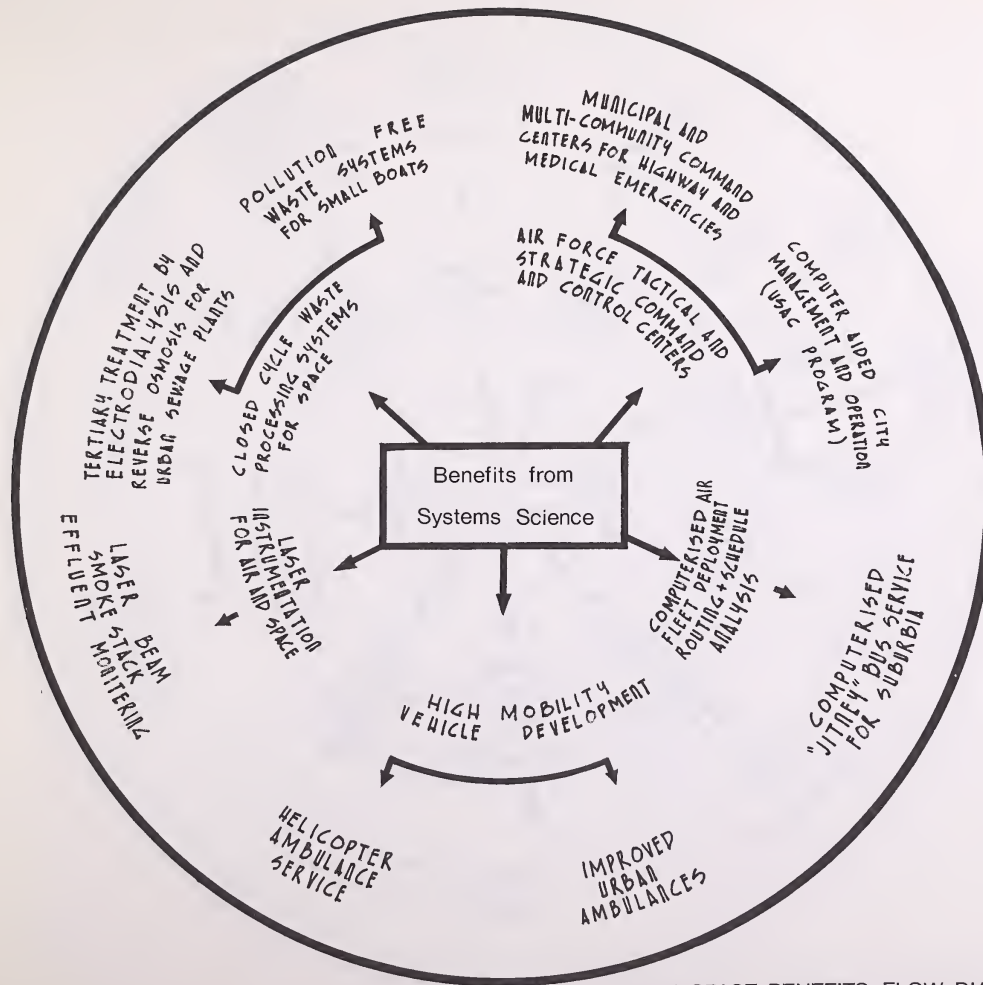
In 1976 a new National Air and Space Museum is scheduled to open. We foresee "Earthbound Benefits from Flight" researched in FY 73, designed and produced in FY 74 for installation in our existing Air and Space building, but made in such a way that it will be largely transferable to the new museum building. There it will continue as an ongoing exhibit area and activity. The present Air and Space building, a 15,000-square-foot structure with flexible space and easy access, is an ideal test area. Once developed, the exhibition might also be adapted for traveling.

This funding request covers the research activity of FY 73, encompassing technology-transfer research; a comprehensive survey of the air and space (and allied) industries for further successful "benefit-of-man" transfers; research to determine feasible future transfer possibilities; exhibit concept development and concept scripting. Funding requirements are estimated at \$25,000

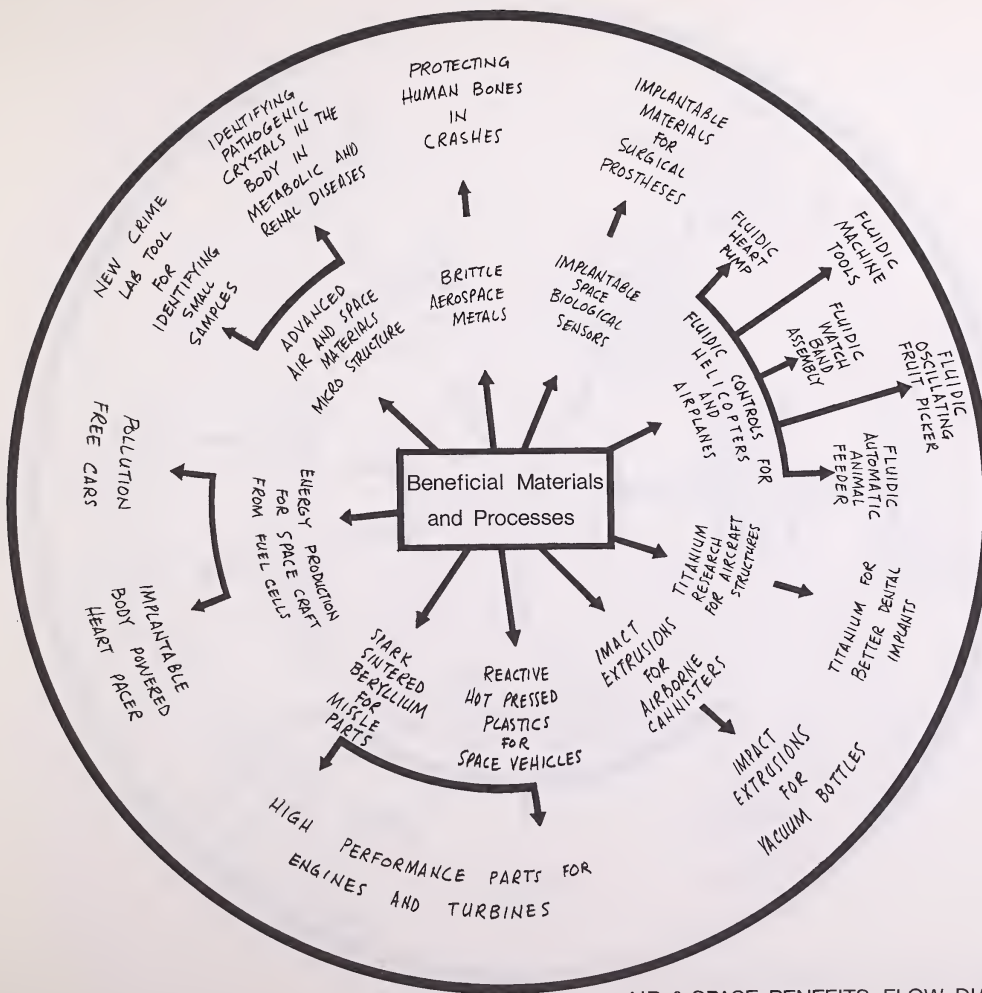
chargeable to object classification code 25 (Other Services).

After FY 74 (Production) this activity is planned to be absorbed into the National Air and Space Museum operating budget.

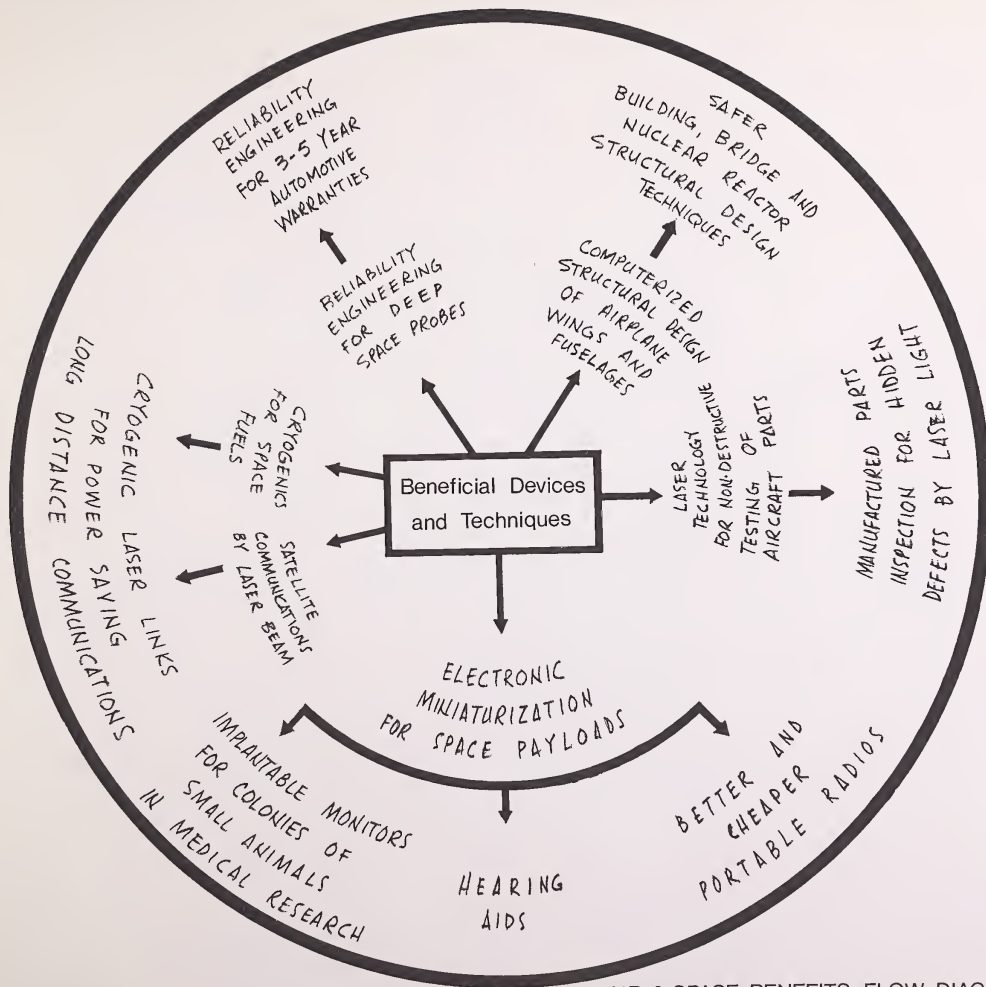
"Earthbound Benefits from Flight" is a "now-and-future"-oriented exhibit based on both past achievements and present potentials. It could run for many years, or until man needs no additional help in applying, for his further benefit, the technological advances developed for, and associated with, air-and-space progress.



AIR & SPACE BENEFITS FLOW DIAGRAM



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